ESSENTIAL CONSIDERATIONS IN CHRONIC PAIN MANAGEMENT

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| A CASE-BASED PROGRAMME |
LEARNING OBJECTIVES

- Understand the complexity of chronic pain

- Describe and implement multimodal pain management strategies
  - pharmacological and
  - non-pharmacological approaches

- Understand and apply the universal precautions in pain medicine for the management of moderate to severe chronic pain using opioids
PART 1: CHRONIC PAIN

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PAIN - IASP DEFINITION (1979)

‘an unpleasant sensory and emotional experience, associated with actual or potential damage or described in terms of such damage’

- Pain is a complex process
  - Pain involves thoughts and feelings
  - Whatever the experiencing person says it is
  - Exists whenever the experiencing person says it does

- All pain is real
  - Regardless of whether the biological cause is known
CHRONIC PAIN

- Chronic pain is pain that continues beyond the usual time of healing (or expected time of recovery)
  - Arbitrarily defined as longer than 3 months\(^1\)

- Chronic pain often involves more complex psychological features with multiple aetiologies

- Physical and psychological symptoms

- Pain classified as
  - Nociceptive, neuropathic or mixed\(^2\)

In 2007, around 3.2 million Australians were estimated to experience chronic pain

Pain and depression may co-exist in 30–50% of patients, with adverse effects on quality of life, disability and healthcare costs

TYPES OF PAIN

- **Nociceptive pain**
- **Neuropathic pain**

**Mixed pain**
(Both types of pain co-exist in many conditions)
A sensory and emotional experience that occurs when specific peripheral sensory neurons (nociceptors) respond to noxious stimuli.

Painful region is typically localised at the site of injury:
- Throbbing, aching or stiffness
- Aggravated by movement

Usually time-limited and resolves when damaged tissue heals (e.g. bone fractures, burns and bruises).

Can be chronic (e.g. osteoarthritis).

Responds to conventional analgesics.

**NOCICEPTIVE PAIN**
Pain initiated or caused by a primary lesion or dysfunction in the peripheral or central nervous system (IASP definition)

Pain arising as a direct consequence of a lesion or disease affecting the somatosensory system (NeuPSIG of IASP)

Pain often described as shooting, electric shock-like, burning – commonly associated with tingling or numbness

Pain occurs in the neurological territory of the affected structure (nerve, root, spinal cord, brain)
  - Typically distant from the site of injury

Commonly a chronic condition
  - e.g. Post-herpetic neuralgia, post-stroke pain), but can occur with acute nerve injury (e.g. spinal cord injury, sciatica or surgery)

Responds poorly to conventional analgesics
PART 2: MULTIMODAL PAIN MANAGEMENT

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Focusing on a single treatment modality may fail to address important aspects of the patient’s pain experience\(^1\):
- false beliefs and poor habits
- unrealistic expectations
- depression and anxiety

A multimodal (team) approach is preferred,\(^1\) involving:
- non-pharmacological therapies
- pharmacotherapy
- referral to other healthcare professionals
- procedural interventions

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THE COMPLEXITY OF PAIN PERCEPTION (SOCIAL AND PSYCHOLOGICAL)\textsuperscript{1}

Unique patient aspects

Beliefs or concerns

Psychological symptoms

Cultural issues

Other physical symptoms \textit{e.g.} cancer

Coping strategies \textit{e.g.} active vs. passive

Social context \textit{e.g.} loss of work, relationship problems

\textbf{STIMULUS} \hspace{10cm} \textbf{PAIN PERCEPTION}

BIOPSYCHOSOCIAL APPROACH\textsuperscript{1}

What is happening to the body? cause of pain

What is happening to the person? Impact on ADL’s
Sleep
Mood
Self-esteem

What is happening in the person’s world?
Impact on family, friends and work

MULTIMODAL PAIN MANAGEMENT

Patient assessment

Non-pharmacological approaches

Pharmacotherapy

Procedural intervention

NON-PHARMACOLOGICAL APPROACHES

Physical techniques
- physiotherapy
- manual therapy
- hyperstimulation analgesia

Psychological techniques
- cognitive behavioural therapy
- relaxation/meditation
- hypnosis

Occupational therapy
- task simplification
- pacing

Social interventions
- community support groups
- self-help groups
- work retraining/modification

**WHO ANALGESIC LADDER**
(GENERALLY FOR NOCICEPTIVE PAIN)

- **Non-opioids (paracetamol, NSAID’s, COX-2)**
- **Persistent pain or increasing pain**
- **Weak opioids (codeine, tramadol, buprenorphine, tapendatol)**
  - for mild-moderate pain
  - +/- non opioids +/- adjuvants (TCA, AED)
- **Persistent pain or increasing pain**
- **Strong opioids (oxycodone, Targin, morphine, fentanyl)**
  - for moderate-severe pain
  - +/- non opioids +/- adjuvants
- **Symptoms**
  - Mild
  - Severe

Supervised
NEUROPATHIC PAIN THERAPY 2013

- Carbamazepine (NNT to obtain 50% relief - 1.7)
- Valproate, Phenytoin, Gabapentin, Lamotrigine, Topiramate, Oxcarbazepine
- Pregabalin, Levetiracetam, Tiagabine
- Lacosamide (Vimgat), Zonisamide
- Clonazepam
- Amitriptyline, Nortriptyline, Imipramine
- Duloxetine
- Opioids – Tramadol, Buprenorphine, Oxycodone (Targin), Tapendatol, Morphine, Fentanyl, Hydromorphone
- Baclofen, Mexilitene, Clonidine
- Capsaicin cream, Lignocaine 5% Dermal patch
- N-methyl-D-aspartate (NMDA) blockers – Ketamine, Memantine
- Botulinum Toxin
- Vitamin B12
# PHARMACOTHERAPY

| Initial Analgesic options | Paracetamol (1000mg qid)  
|                          | Panadeine Forte (2 x 500mg/30mg qid)  
|                          | Tramadol Quick Acting Capsules (50mg qid) |
| Pain lasting > 5 days | Tramadol SR (100-200 mg bd)  
|                        | Duro-Tram XR (100-300mg nocte)  
|                        | Tapendatol SR (50 – 200mg bd)  
|                        | Buprenorphine patch (5-20 ug/hr weekly)  
|                        | Oxycontin 10-20 mg bd or Targin 10/5 – 20/10 mg bd  
|                        | Fentanyl patch 12-25 mcg every 3 days |

| Nocturnal Pain (TCA antidepressant) | Amitriptyline (10-25mg nocte) / Nortriptyline (10-25mg)  
|                                      | Doxepin (25-50mg nocte)  
|                                      | Clonazepam (0.25-0.5mg nocte) |

| Daytime Pain (Adjuvant AED) | Epilim (200-400 mg bd)  
|                           | Pregabalin (25-300 mg bd)  
|                           | Duloxetine (30-120 mg mane)  
|                           | Gabapentin (100 – 600 mg tds) |
PROCEDURAL INTERVENTIONS

- Injection techniques
  - local anaesthetic nerve blocks for diagnostic, prognostic or therapeutic purposes
  - focus on improved movement as a measure of efficacy

- Spinal cord stimulation

- Intrathecal therapy

- Surgery
  - must have a clear idea of pain-causing mechanism, especially in low back pain

Does not imply “Pain is not Real”
- When pain persists beyond healing or with no cause, it is often assumed patient is willingly aggravating the pain
  This is rarely the case
- Pain is a perception, which is filtered through the brain

Multidisciplinary treatment
- 1st pain clinic to include psychological component –1976
- Cognitive components are crucial to the treatment
  - Reduce pain but also improve mood and decrease disability
- Medical, physical, behavioural, emotional, vocational, social
PART 3: UNIVERSAL PRECAUTIONS WHEN PRESCRIBING OPIOIDS FOR THE MANAGEMENT OF MODERATE TO SEVERE CHRONIC PAIN

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OPIOIDS FOR THE TREATMENT OF MODERATE TO SEVERE CHRONIC PAIN

- Opioid therapy should be used as part of a multimodal pain management plan\(^2,3\)
  - an appropriate pain management plan must include non-pharmacological interventions

- Consider opioids after conservative pharmacological and non-pharmacological treatments have tried and failed\(^1,2\)

- Appropriate patient selection is the key to successful treatment of moderate to severe chronic pain with opioids\(^1,3\)

“In prescribing S8 opioids the aim is to reduce pain without causing distressing side-effects thus enabling functional restoration in the patient who is then able to achieve the outcomes and specific goals of treatment.”

— Government of South Australia: Guidelines for South Australian General Practitioners

10 STEPS OF UNIVERSAL PRECAUTIONS IN PAIN MEDICINE

- A 10-step approach for the assessment and management of chronic pain patients\(^1,2\)

- By applying the universal precautions:\(^2\)
  - patient care is improved
  - stigma associated with opioids is reduced
  - overall risk is assessed

- May also assist in the identification and interpretation of aberrant behaviour and diagnosis of underlying addictive disorder (where relevant)\(^2\)

1. Diagnosis with appropriate differential
2. Psychological assessment and risk of addictive disorders
3. Informed consent
4. Agree on treatment with your patient
5. Assess pain & function
6. Start an opioid trial
7. Regularly assess pain and function
8. Regularly assess the 6 As of pain medicine
9. Periodic review
10. Keep complete documentation

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE

STEP 1: APPROPRIATE DIAGNOSIS

1. Diagnosis with appropriate differential

2. Psychological assessment and risk of addictive disorders

3. Informed consent

4. Agree on treatment with your patient

5. Assess pain & function

- HISTORY EXAMINATION
  - Is there a treatable cause?\(^1\)
    - base diagnosis on evaluations and review of patient records\(^2\)
  - Does the patient have any comorbid conditions?\(^1\)
    - substance abuse?
    - psychiatric illness?
  - Prescription shopping info service of Medicare prescription program

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DETERMINING UNDERLYING CAUSES OF PAIN

‘Red flags’ are clinical indicators of possible serious underlying conditions requiring further medical intervention (designed for use in acute back pain)\(^1\)

<table>
<thead>
<tr>
<th>Possible fracture</th>
<th>Possible tumour or infection</th>
<th>Possible significant neurological deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From history</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major trauma</td>
<td>Age &gt;50 or &lt;20 years</td>
<td>Severe or progressive sensory alteration or weakness</td>
</tr>
<tr>
<td>Minor trauma in elderly or osteoporotic</td>
<td>History of cancer</td>
<td>Bladder or bowel dysfunction</td>
</tr>
<tr>
<td></td>
<td>Constitutional symptoms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IV drug use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Immunosuppression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pain worsening at night/when supine</td>
<td></td>
</tr>
<tr>
<td><strong>From physical examination</strong></td>
<td></td>
<td>Evidence of neurological deficit</td>
</tr>
</tbody>
</table>

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 2: PSYCHOLOGICAL & RISK ASSESSMENT

- Conduct a comprehensive biopsychosocial assessment
- What is the patient’s past and current, personal and family history of substance and alcohol abuse?¹
  - do any psychological factors indicate a potential for abuse, addiction or diversion?
- All other conservative treatment options including non-pharmacological and adjuvant treatments must have been tried and have failed²

YELLOW FLAGS

- Psychosocial ‘yellow flags’
  - Initially designed to predict failure to return to work after back pain

- Now used to predict which patients will develop long-term disability and pain.\(^1,2\)

- Relate to:
  - belief that pain is harmful or severely disabling
  - fear-avoidance behaviour and reduced activity
  - social withdrawal
  - expectation that passive treatments rather than active participation will help

Psychological assessment tools complement your clinical assessment of the patient, and may include:
- mood screening scales (e.g. K-10, GDS, CES-D, DASS)\(^1,2\)
- Örebro Musculoskeletal Screening Questionnaire\(^1\)
- pain coping questionnaires\(^3\)

While DSM-IV criteria are not a screening tool, they may be useful for the diagnosis of psychological disorders\(^2\)

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## OPIOID RISK ASSESSMENT TOOL (ORT)\(^1\)\(^–\)\(^2\)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history of substance abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Alcohol</td>
<td>3 points</td>
<td>1 point</td>
</tr>
<tr>
<td>- Illicit drugs</td>
<td>3 points</td>
<td>2 points</td>
</tr>
<tr>
<td>- Prescription drugs</td>
<td>4 points</td>
<td>4 points</td>
</tr>
<tr>
<td>Personal history of substance abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Alcohol</td>
<td>3 points</td>
<td>3 points</td>
</tr>
<tr>
<td>- Illicit drugs</td>
<td>4 points</td>
<td>4 points</td>
</tr>
<tr>
<td>- Prescription drugs</td>
<td>5 points</td>
<td>5 points</td>
</tr>
<tr>
<td>Aged between 16 and 45</td>
<td>1 point</td>
<td>1 point</td>
</tr>
<tr>
<td>History of preadolescent sexual abuse</td>
<td>0 points</td>
<td>3 points</td>
</tr>
<tr>
<td>Psychiatric disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Attention deficit disorder, obsessive-compulsive disorder,</td>
<td>2 points</td>
<td>2 points</td>
</tr>
<tr>
<td>bipolar disorder, schizophrenia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>1 point</td>
<td>1 point</td>
</tr>
</tbody>
</table>

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 3: INFORMED CONSENT

1. Diagnosis with appropriate differential
2. Psychological assessment and risk of addictive disorders
3. Informed consent
4. Agree on treatment with your patient
5. Assess pain & function

- Discuss treatment plan including potential risks and benefits¹
- Explore specific issues of addiction, physical dependence and tolerance¹

### EXAMPLES OF BENEFITS AND RISKS OF OPIOID THERAPY

<table>
<thead>
<tr>
<th>Examples of benefits and risks of opioid therapy&lt;sup&gt;1,2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential benefits</strong></td>
</tr>
<tr>
<td>• Reduction in pain</td>
</tr>
<tr>
<td>• Improvements in pre-specified activities of daily living</td>
</tr>
<tr>
<td>• Increased performance of various pre-specified exercises</td>
</tr>
<tr>
<td><strong>Potential risks</strong></td>
</tr>
<tr>
<td>• Potential to develop tolerance, dependence and/or addiction</td>
</tr>
<tr>
<td>• Potential to develop side effects, including mental clouding and sedation, constipation, nausea and hormonal problems</td>
</tr>
</tbody>
</table>

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE

STEP 4: TREATMENT AGREEMENT

1. Diagnosis with appropriate differential

2. Psychological assessment and risk of addictive disorders

3. Informed consent

4. Agree on treatment with your patient

5. Assess pain & function

- Discuss expectations of both the patient and the practitioner\(^1\)

- Written treatment agreement for initiation, continuation and termination of treatment\(^1,2\)

- Not meeting the goals of therapy, or development of aberrant behaviours, are grounds for discontinuing therapy\(^3\)

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DOCTOR-PATIENT AGREEMENT

CONSENT FOR USE OF OPIOIDS IN MODERATE TO SEVERE CHRONIC PAIN • DOCTOR - PATIENT TREATMENT AGREEMENT

This agreement aims to provide you with information about opioid therapy and to seek your approval about the way in which the medication will be used.

POTENTIAL BENEFITS

Set expectations through treatment goals

POTENTIAL PROBLEMS/RISKS

Outline prescribing rules and expectations

E.g. duration of treatment

PRACTICAL ISSUES

Signed agreement

1. Hunter Integrated Pain Service, Opioid use in persistent pain, April 2012
TREATMENT GOALS

- Specific goals of opioid treatment will vary depending on the patient’s circumstances\(^1\)
- Treatment goals should be realistic and achievable, and address improvements in both pain and function\(^1\)
- Goals of opioid treatment should be documented prior to an opioid trial\(^1\)

Discussion point:
What are some functional goals you have helped to set for your opioid-treated patients?

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE

STEP 5: PAIN ASSESSMENT

- Pre-intervention (baseline) measurements to enable assessment of response to therapy\(^1,2\)

1. Diagnosis with appropriate differential
2. Psychological assessment and risk of addictive disorders
3. Informed consent
4. Agree on treatment with your patient
5. Assess pain & function

PAIN ASSESSMENT TOOLS

- **Brief Pain Inventory (BPI)**\(^1\)
  - assesses pain severity and degree of interference with function

- **Pain scales**\(^2\)
  - numerical rating scale (NRS), verbal rating scale (VRS), visual analogue scale (VAS)

- **Abbey Pain Scale**\(^3\)
  - for patients with dementia and non-communicative patients

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UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 6: OPIOID TRIAL (LAST RESORT)

6. Start an opioid trial

7. Regularly assess pain and function

8. Regularly assess the 6 As of pain medicine

9. Periodic review

10. Keep complete documentation

- Duration 4–6 weeks for first-time patients\(^1-4\)
- Start at a low dose and gradually titrate upwards if required\(^3\)

An opioid trial will establish whether the patient’s chronic moderate to severe pain is responsive to opioid therapy.\(^3\)

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 7: FOLLOW-UP ASSESSMENT

- Initially weekly during the trial period\(^1\)
- Assess pain and function using the BPI\(^2,3\)
- Decide whether to continue, modify dose, or withdraw opioid\(^2\)

A valid outcome of an opioid trial is the decision not to proceed with treatment.\(^3\)

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UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 8: THE 6 As OF PAIN MEDICINE\(^1\text{–}\text{5}\)

- Analgesia
- Activity
- Affect
- Adverse effects
- Aberrant behaviours
- Accurate prescribing records

## THE 6 As OF PAIN MEDICINE\(^1\textsuperscript{–5}\)

<table>
<thead>
<tr>
<th>Activity</th>
<th>What progress has been made in the patient’s functional goals?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analgesia</strong></td>
<td>How does the patient rate their average and worst pain over the last 24 hours? How much relief have pain medications provided?</td>
</tr>
<tr>
<td><strong>Adverse effects</strong></td>
<td>Has the patient experienced any adverse effects from medication?</td>
</tr>
<tr>
<td><strong>Aberrant behaviour</strong></td>
<td>Has the patient been taking medication as prescribed? Has the patient exhibited any signs of medication misuse/abuse?</td>
</tr>
<tr>
<td><strong>Affect</strong></td>
<td>Have there been any changes to the way the patient has been feeling? Is pain impacting on the patient’s mood? Depressed? Anxious?</td>
</tr>
<tr>
<td><strong>Accurate records</strong></td>
<td>Document the initial evaluation and each follow-up, including current pain medication and any changes to the management plan.</td>
</tr>
</tbody>
</table>

# OPIOID-RELATED SIDE EFFECTS

<table>
<thead>
<tr>
<th>Common side effects</th>
<th>Other side effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dry mouth</td>
<td>• Hormonal effects</td>
</tr>
<tr>
<td>• Nausea and vomiting</td>
<td>• Hyperalgesia</td>
</tr>
<tr>
<td>• Opioid-induced constipation (OIC)</td>
<td>• Immunosuppression</td>
</tr>
<tr>
<td>• Postural hypotension</td>
<td>• Respiratory depression</td>
</tr>
<tr>
<td>• Pruritus</td>
<td>• Tolerance and addiction</td>
</tr>
<tr>
<td>• Sedation</td>
<td></td>
</tr>
</tbody>
</table>

Bowel Function Index (BFI)
- patient rates for the last 7 days (NRS 0–100)
  - ease of defaecation
  - feeling of incomplete evacuation
  - personal judgement of constipation
- BFI = average of the 3 individual ratings

Normal BFI is ≤30 in OIC

Belinda’s BFI is 48

OPIOID-INDUCED CONSTIPATION (OIC)

- Common, occurring in 40–95% of opioid-treated patients\(^1\)
- Clinical consequences include:\(^2\)
  - decreased quality of life
  - limited ability to function (work and daily activities)
  - increased use of health resources
- Persistent and unlikely to improve over time\(^1\)
- Some patients decrease or cease opioid therapy (despite pain) to reduce constipation\(^3\)

Discussion point:
How might you manage OIC in clinical practice?

# LAXATIVES

<table>
<thead>
<tr>
<th>Type</th>
<th>Mechanism of action</th>
<th>Side effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk laxatives</td>
<td>Hydrophilic: water absorbing</td>
<td>Bloating, flatulence</td>
</tr>
<tr>
<td><em>e.g.</em> Metamucil (psyllium)</td>
<td>↑ stool volume</td>
<td></td>
</tr>
<tr>
<td>Stimulant laxatives</td>
<td>↑ intestinal motility</td>
<td>Abdominal pain</td>
</tr>
<tr>
<td><em>e.g.</em> Dulcolax (bisacodyl)</td>
<td>↑ secretions into lumen</td>
<td></td>
</tr>
<tr>
<td>Osmotic laxatives</td>
<td>Osmotic gradient</td>
<td>Bloating, nausea, abdominal pain</td>
</tr>
<tr>
<td><em>e.g.</em> Movicol (macrogol), Duphalac (lactulose)</td>
<td>Draws water into lumen to stimulate peristalsis</td>
<td></td>
</tr>
<tr>
<td>Stool softeners</td>
<td>Detergent</td>
<td>May reduce fat-soluble vitamin absorption</td>
</tr>
<tr>
<td><em>e.g.</em> Coloxyl (docusate sodium)</td>
<td>Allows water to mix with stool to soften stool</td>
<td>(e.g. liquid paraffin)</td>
</tr>
<tr>
<td>Enema</td>
<td>Reflux evacuation</td>
<td>Dehydration</td>
</tr>
</tbody>
</table>

LIMITATIONS OF LAXATIVES IN OIC

- Laxatives can help reduce symptoms of constipation, especially if the cause is multi-factorial.
- OIC often persists as laxatives do not address the cause
  - lack of data to guide laxative selection
  - there are additional side effects and cost
  - compliance issues

Opioid antagonists can be used to prevent or treat OIC, which arises due to activation of opioid receptors in the gut.

TARGIN® TABLETS (APRIL 2011)
OXYCODONE + NALOXONE

TARGIN® TABLETS 12-HOURLY CONTROLLED RELEASE

OXYCODONE
Opioid agonist with central action

NALOXONE
Opioid antagonist that acts locally in the gut

TARGIN® TABLETS EFFECTIVELY RELIEVE MODERATE TO SEVERE CHRONIC PAIN

TARGIN® TABLETS HELP PREVENT OIC

1. 12-hourly oral tablets deliver oxycodone CR / naloxone CR

2. Due to its high binding affinity, naloxone prevents or reverses the effects of oxycodone in the GI tract, reducing OIC

3. During first pass, at least 97% of naloxone is metabolised in the healthy liver, while up to 87% of oxycodone passes into circulation unchanged

4. Oxycodone exerts a central analgesic effect equivalent to oxycodone alone

CNS=central nervous system; CR=controlled release; GI=gastrointestinal; OIC=opioid-induced constipation.
Oxycodone and Naloxone preferentially bind to enteric opioid receptors, preventing oxycodone binding. Opioid receptors within the enteric nervous system of the GI wall. Epithelium:

- Oxycodone
- Naloxone preferentially binds to enteric opioid receptors, preventing oxycodone binding.
SIDE EFFECT PROFILE OF OXYCODONE / NALOXONE CR TABLETS

- Common side effects are consistent with other opioids\(^1\)
  - include dizziness, headache, nausea, vomiting, dry mouth, constipation, diarrhoea and pruritus

- GI tolerability
  - fewer bowel function disorders such as constipation compared with oxycodone CR alone\(^2,3\)
  - diarrhoea may be a possible side effect of naloxone, especially at the beginning of treatment, but tends to be transient\(^1\)

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86% of patients experienced pain associated with musculoskeletal & connective tissue disorders. 34% of patients reported neuropathic pain\(^1\)

There was no statistically significant difference in mean daily use of rescue medication between the two groups\(^1\)

SWITCHING FROM OTHER OPIOIDS TO OXYCODONE / NALOXONE CR TABLETS

- When switching to oxycodone/naloxone CR tablets consider:
  - dose of previous opioid analgesic
    - Starting dose is 10/5 mg bd (renal and elderly 5/2.5mg bd)
  - a review (and possible reduction) of prior laxative regimen
  - setting patient expectations
  - possibility of transient diarrhoea
  - universal precautions in pain medicine
ABERRANT DRUG-RELATED BEHAVIOURS (ADRBs)

- ADRBs may include:\(^1,^2\)
  - borrowing another patient’s drugs
  - obtaining prescription drugs from non-medical/other medical sources
  - unsanctioned dose escalations
  - aggressive complaining about the need for higher doses
  - drug hoarding
  - requesting specific drugs
  - prescription forgery
  - recurring prescription losses
  - injection of substances prescribed for oral use
  - concurrent use of related illicit drugs

ABERRANT DRUG-RELATED BEHAVIOURS (ADRBs)

- ADRBs may be indicative of risk of addiction
- ADRBs may arise from a number of factors, including under-treatment of pain

“Now, even though iatrogenic opioid addiction rates are still largely unknown, it is generally recognized that problematic opioid seeking and addiction arise often enough during chronic treatment to be of considerable concern.”

– Ballantyne JC & LaForge KS, 2007

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 9: PERIODIC REVIEW

- If the patient’s pain is opioid responsive, consider longer-term opioid therapy for 3–6 months with monthly reviews
- Review pain diagnosis and comorbid conditions
- Ensure the patient is willing to actively participate in all (including non-pharmacological) aspects of their pain management plan

UNIVERSAL PRECAUTIONS IN PAIN MEDICINE
STEP 10: DOCUMENTATION

- Careful and complete recording of the initial evaluation and each follow-up is in the best interest of both parties\(^1,2\)

- Medico-legally, documentation in the patient’s medical record that pain is being followed over time is important evidence of the appropriateness of treatment\(^3\)

The decision to discontinue opioid therapy may be made for a variety of reasons including:
- successful therapeutic outcomes
- unresponsive to opioid therapy
- adverse effects
- development of aberrant behaviours
- development of a psychological issues
- patient’s choice

Cessation of opioid therapy requires gradual dose reductions over time\(^2\)\(^–\)\(^4\)

PART 4: CASE STUDIES

A/PROFESSOR ARUN AGGARWAL

RPAH
SYDNEY
MRS BL

- 72 yo retiree
  - Helps care for her five grandchildren
- History of osteoarthritis of the hip
  - currently taking oxycodone CR
- Regularly attends hydrotherapy
- History of OIC
  - currently taking multiple laxatives
PRESENTATION

- Presents for her regular review
- Maintaining her treatment goals
  - increased ability to perform routine day-to-day activities such as putting on her socks
  - increased sitting and standing tolerance
- Complains of abdominal pain and bloating, with recent onset of nausea
  - potential diagnosis?

Discussion point:
What further investigations would you perform to diagnose or exclude OIC?
PATHOGENESIS OF CHRONIC CONSTIPATION

PRIMARY CONSTIPATION\textsuperscript{1,2}

- Functional constipation (low fibre and fluid intake)\textsuperscript{1,3,4}
- Idiopathic (includes irritable bowel disease)\textsuperscript{1,2,4}

SECONDARY CONSTIPATION\textsuperscript{1,2}

Iatrogenic $\rightarrow$ opioids, Ca\textsuperscript{2+} channel blockers, anti-cholinergics, TCA’s, antacids\textsuperscript{1–3}

Metabolic & endocrine disorders $\rightarrow$ diabetes, thyroid disease,\textsuperscript{1–3}

Psychological $\rightarrow$ depression\textsuperscript{2}

Neurologic and myopathic disorder $\rightarrow$ Parkinson’s disease, multiple sclerosis, stroke\textsuperscript{1–3}

Structural obstruction $\rightarrow$ colon cancer, stricture, anal fissures and stenosis\textsuperscript{1–3}

How would you better manage Belinda’s OIC and moderate to severe chronic pain?
**TARGIN® TABLETS**

INITIATION and TITRATION

- 12-hourly oral dosing
- TARGIN® tablets must be swallowed whole and **must not be broken, chewed or crushed**
- Titrate cautiously, to achieve pain relief and functional improvement, and to minimise the risk of adverse events

**USUAL STARTING DOSE**

- Patients uncontrolled on weaker opioids

10/5 mg TARGIN® tablet 12-hourly

Opioid therapy should only be used as part of a multimodal pain management plan
### TARGIN® TABLETS

**INITIATION and TITRATION**

#### 50% STARTING DOSE IN:
- Patients with mild hepatic impairment
  - Bil to 45, Alb to 28, INR 2.3
- Patients with renal impairment
  - Clcr <60mL/min
- Debilitated elderly patients

#### MAXIMUM RECOMMENDED DOSE

- A maximum recommended dose exists due to limited exposure of patients receiving doses beyond 40/20 mg 12-hourly
- If longer-term treatment is anticipated, careful and regular assessment and monitoring is required to establish the clinical need for ongoing opioid treatment

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1. TARGIN® tablets Product Information. April 2011.
- 76 yo carpenter,
  - now manager at carpentry firm
  - also likes working in garden
- History of right knee pain
- Currently on maximum dose paracetamol/codeine (30 mg)
  - NSAID for breakthrough pain
- Has regular physiotherapy
  - home-based exercise programme
  - heat packs
PRESENTATION

- Complains of worsening knee pain
  - pain assessment NRS 8/10 = moderate to severe pain

- Complains of impaired daily function
  - unable to work a full day due to knee pain
  - trouble with light household and gardening tasks
  - reduced tolerance for standing
  - disturbed sleep

- Experiences dyspepsia due to NSAID use

NRS = Numerical rating scale
WHAT IS YOUR TREATMENT PLAN FOR JOHN?

- John may be a candidate for knee surgery.
- How would you manage John’s moderate to severe chronic pain between now and surgery?
OPIOIDS

Discussion point:
Which opioid would you trial for John’s moderate to severe chronic pain and why?

- Buprenorphine 7-day patch (Norspan)
- Tramadol / Tapendatol SR
- Oxycodone/naloxone CR (Targin)
- Oxycodone CR (Oxycontin)
- Fentanyl 3-day patch
- Morphine CR (MS Contin)
- Hydromorphone (modified release)

PROGRESS

- Commence **Buprenorphine 5 mcg/hr weekly patch**

- Pain improved from **NRS 8/10 to 4/10**
  - Ceased regular paracetamol/codeine, but needs paracetamol 8/day
  - Able to work all day, without being limited by pain
  - Stand for as long as needed
  - Sleeping well at night

- Review in 4 weeks, patch **increased 10 mcg/hr weekly**

- Pain **improved to 2/10**
  - No additional analgesia required and functioning very well
PROGRESS

- Buprenorphine patch *5 mcg/hr weekly*:  
  - Background pain *6/10 to 4-5/10*  
  - Sleep has improved, not waking in pain  
  - No change on pain during walking (rating 9/10)  
  - No adverse effects reported

- Buprenorphine patch dose increased to *10 mcg/hr*
  
  - Pain relief improved  
    - Background pain reduced further to *3/10*  
    - Incident pain improved with worst pain 5/10  
    - Walking tolerance increased to 30 minutes  
    - Buprenorphine is well tolerated

- Continue buprenorphine patch at 10 mcg/h
Mrs MW

- 54 yo
- 8 year history of lower lumbar back pain
- Constant sharp shooting pain down right leg 9/10
- CT Lumbar spine – severe degenerative facet joint disease and moderate disc bulge L4/5
- **Amitriptyline 10 mg nocte**
  - Improved sharp pain
- Ongoing dull ache 5-6/10
- Add **Tramadol SR** 100 mg mane
  - Improved pain and able to return to work
Mrs MW

- Constant dull ache 5/10
- Increased Tramadol to 200 mg bd

- Bone Scan
  - Moderate facet joint uptake at multiple levels

- Started Oxycontin 10 mg bd
  - Excessive daytime drowsiness
  - 5 mg bd improved pain from 8/10 to 5/10
  - Drowsy during the day
  - “Sick of taking pills”
Mrs MW

- **Fentanyl patch**
  - 12 – 25 – 37 mcg every 3 days but lasts only 2 days
  - Drowsy throughout the day
  - Constant pain - dull ache - 5/10

- **Constipation**
  - Opening her bowels about once a week
    - Drinking 2 litres of water a day
    - Tony Ferguson high fibre diet

- **Targin 10/5 mg bd** increasing to **20/10 mg bd**
  - Pain manageable and tolerable 2/10
  - Less drowsy during the day
  - Less constipation – bowels opening 2-3 times a week
PART 5: SUMMARY

A/PROFESSOR ARUN AGGARWAL
RPAH
SYDNEY
SUMMARY

- Chronic pain is a complex condition affected by psychological, environmental, social and physiological factors.
  - Chronic pain should be managed using a multimodal approach, including pharmacological and non-pharmacological treatments.

- Opioids may be considered for the treatment of well-selected patients with chronic moderate to severe pain when all other conservative therapies have been tried and have failed.

- The 10 steps of universal precautions in pain medicine should be implemented when prescribing opioids.

References:
Neuropathic pain is common, under-reported, under-diagnosed and under-treated.

A simple, stepwise approach to diagnosis may help differentiate between neuropathic and nociceptive pain:

- **Listen to the patient’s pain description**
- **Locate a potential nerve lesion/dysfunction, if possible**
- **Look for neurological symptoms, such as sensory deficits**
Neuropathic pain responds poorly to conventional analgesia

- First-line treatments include:
  - TCAs (amitriptyline)
  - Alpha 2-delta ligands (pregabalin)
  - SNRIs (duloxetine)

- Second-line treatments include:
  - Opioids

Constant nociceptive pain should be treated by regular long acting medication, NOT by short acting drugs given PRN

- PRN = pain relief never
SUMMARY

- Opioids should be administered as part of a multimodal management plan, including non-pharmacological approaches\(^1,2\)

- The goal of opioid therapy is to reduce pain with improvements in function and minimise side effects\(^3\)

- Opioids may be used for the treatment of moderate to severe chronic pain in well-selected patients when all other conservative pharmacological and non-pharmacological therapies have been tried and have failed.\(^2,5,6\)

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